

PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCI)

(51) International Patent Classification ⁷ : A61F 2/06	A1	(11) International Publication Number: WO 00/18328 (43) International Publication Date: 6 April 2000 (06.04.00)
(21) International Application Number: PCT/US99/22808 (22) International Filing Date: 30 September 1999 (30.09.99) (30) Priority Data: 60/102,518 30 September 1998 (30.09.98) US (71) Applicant: IMPRA, INC. [US/US]; 1625 West 3rd Street, P.O. Box 1740, Tempe, AZ 85280-1740 (US). (72) Inventors: EDWIN, Tarun; 1655 W. Tyson Street, Chandler, AZ 85224 (US). RANDALL, Scott, L.; 1803 East Nido Avenue, Mesa, AZ 85202 (US). BANAS, Christopher; 102 Rock Squirrel, San Antonio, TX 78231 (US). MCCREA, Brendan; 4158 East Graythorn Avenue, Mesa, AZ 85044 (US). (74) Agents: KIRCHANSKI, Stefan, J. et al.; Graham & James LLP, 14th floor, 801 S. Figueroa Street, Los Angeles, CA 90017-5554 (US).		(81) Designated States: CA, JP, MX, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: SELECTIVE ADHERENCE OF STENT-GRAFT COVERINGS, MANDREL AND METHOD OF MAKING STENT-GRAFT DEVICE		
(57) Abstract <p>A method for selectively bonding layers of polymeric material, especially expanded polytetrafluoroethylene (ePTFE), to create endoluminal vascular devices. In a preferred method the selective bonding is achieved by applying pressure to selected areas using a textured mandrel. This permits a stent device to be encapsulated between two layers of ePTFE with unbonded slip pockets to accommodate movement of the structural members of the stent. This allows stent compression with minimal force and promotes a low profile of the compressed device. Unbonded regions of ePTFE allow enhanced cellular penetration for rapid healing and can also contain a bioactive substance that will diffuse through the ePTFE to treat the vessel wall.</p> 		